

Appln No. 09/775,677

Amdt date May 20, 2005

Reply to Office action of February 8, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-13 (Cancelled)

14. (Previously presented) A device for treatment of mitral annulus dilatation, comprising an elongate body having such dimensions as to be insertable into the coronary sinus and having two states, in a first of which the elongate body has a shape that is adaptable to the shape of the coronary sinus, and to the second of which the elongate body is transferable from said first state assuming a reduced radius of curvature, whereby the radius of curvature of the coronary sinus is reduced as well as the circumference of the mitral valve annulus, when the elongate body is positioned in the coronary sinus, said elongate body comprising at least one stent section at a distance from each end of the elongate body, said at least one stent section providing a reduction of its length when expanded in situ in the coronary sinus, whereby the elongate body is shortened and bent to a smaller radius of curvature.

15. (Previously presented) The device of claim 14, wherein the at least one stent section is a central stent section of the elongate body, the central stent section located between a distal stent section and a proximal stent section of the

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elongate body the distal and proximal stent sections being expandable prior to the central stent section.

16. (Original) The device of claim 15, wherein the distal and proximal stent sections are expandable without substantial length reduction.

17. (Original) The device of claim 14, wherein a memory material is used as stent material.

18-21 (Cancelled)

22. (Currently amended) A medical device for remodeling an extravascular tissue structure adjacent to a vessel in a patient, comprising:

an elongate body extending between a proximal end and a distal end, and that is adjustable ~~between~~ from a first configuration having a first shape such that the elongate body is adapted to be delivered at least in part into the vessel ~~[[and]]~~ to a second configuration having a second shape such that the elongate body is adapted to exert a force from within the vessel onto the extravascular tissue structure in order to remodel the extravascular tissue structure, and

wherein the elongate body is adapted to be positioned in the first configuration at least in part within a coronary sinus and is adapted to remodel a mitral valve annulus adjacent to the coronary sinus when the elongate body is located at least in part within the coronary sinus and is adjusted to the second configuration;

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wherein the distal end of the elongate body is spaced distally from the proximal end of the elongate body in the first and second configurations.

23-24 (Cancelled)

25. (Previously presented) A medical device as in Claim 22, wherein the elongate body within the coronary sinus comprises a substantially similar length between the first and second configurations.

26. (Previously presented) A medical device as in Claim 22, wherein the elongate body within the coronary sinus is relatively non-expandable while the elongate body is adjusted between the first and second configurations.

27. (Previously presented) A medical device as in Claim 22, wherein the elongate body within the coronary sinus is relatively non-compressible while the elongate body is adjusted between the first and second configurations.

28. (Cancelled)

29. (Cancelled)

30. (Previously presented) A medical device as in Claim 22, wherein in the second configuration the second shape for the elongate body at least in part within the coronary sinus defines an arc.

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31. (Cancelled)

32. (Previously Presented) A medical device as in Claim 22, further comprising an anchor for retaining the elongate body at least in part within the coronary sinus.

33. (Previously Presented) A medical device as in Claim 32, wherein the anchor comprises a region along a distal portion of the elongate body.

34. (Previously Presented) A medical device as in Claim 32, wherein the anchor comprises a friction enhancing surface for engaging a wall of the coronary sinus.

35. (Previously Presented) A medical device as in Claim 32, wherein the anchor comprises at least one barb for piercing a wall of the coronary sinus.

36. (Previously Presented) A medical device as in Claim 32, wherein the anchor is located at least in part at the proximal end of the elongate body.

37. (Previously presented) A medical device as in Claim 22, wherein the mitral valve annulus has a wall that circumscribes a space having a diameter, and the elongate body when adjusted from the first configuration to the second configuration within the coronary sinus is adapted to compress the mitral valve annulus to thereby reduce the diameter of said space.

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38. (Currently Amended) A medical system for remodeling an extravascular tissue structure adjacent to a vessel in a patient, comprising:

an elongate body extending between a proximal end and a distal end, and that is adjustable ~~between~~ from a first configuration having a first shape such that the elongate body is adapted to be delivered at least in part into the vessel ~~[[and]]~~ to a second configuration having a second shape such that the elongate body is adapted to exert a force from within the vessel onto the extravascular tissue structure in order to remodel the extravascular tissue structure,

wherein the elongate body is adapted to be positioned in the first configuration at least in part within a coronary sinus and is adapted to remodel a mitral valve annulus adjacent to the coronary sinus when the elongate body is located at least in part within the coronary sinus and is adjusted to the second configuration, and

a deployment system cooperating with the elongate body and which is adapted to at least in part deliver the elongate body in the first configuration at least in part into the coronary sinus;

wherein the distal end of the elongate body is spaced distally from the proximal end of the elongate body in the first and second configurations.

39. (Previously Presented) A medical system as in claim 38, wherein the deployment system comprises a delivery member that is coupled to the elongate body and is adapted to advance the elongate body into the coronary sinus.

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40. (Currently amended) A medical device for remodeling a tissue structure adjacent to a body space that is defined at least in part by a tissue wall in a patient, comprising:

an elongate body extending between a proximal end portion and a distal end portion and that is adjustable ~~between~~ from a first configuration having a first shape that is adapted to be delivered at least in part into the body space ~~[[and]]~~ to a second configuration having a second shape that is adapted at least in part to exert a force from within the body space onto the adjacent tissue structure in order to remodel the adjacent tissue structure, wherein the elongate body is adapted to be positioned in the first configuration at least in part within a coronary sinus and is adapted to remodel a mitral valve annulus adjacent to the coronary sinus when the elongate body is located at least in part within the coronary sinus and is adjusted to the second configuration;

wherein the distal end of the elongate body is spaced distally from the proximal end of the elongate body in the first and second configurations.

41-73 (Cancelled)

74. (Previously Presented) A medical system as in claim 39, wherein the elongate body is pre-formed into an arcuate shape in the second configuration such that when advanced by a delivery member into the coronary sinus it assumes its pre-formed arcuate second configuration to apply force to remodel the mitral valve annulus.

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75. (New) A medical device for remodeling an extravascular tissue structure adjacent to a vessel in a patient, comprising:

an elongate body extending between a proximal end and a distal end, and that is adjustable from a first configuration having a first shape such that the elongate body is adapted to be delivered at least in part into the vessel to a second configuration having a second shape such that the elongate body is adapted to exert a force from within the vessel onto the extravascular tissue structure in order to remodel the extravascular tissue structure, and

wherein the elongate body is adapted to be positioned in the first configuration at least in part within a coronary sinus and is adapted to remodel a mitral valve annulus adjacent to the coronary sinus when the elongate body is located at least in part within the coronary sinus and is adjusted to the second configuration without fully encircling the mitral valve annulus.

76. (New) A medical device for remodeling an extravascular tissue structure adjacent to a vessel in a patient, comprising:

an elongate body extending between a proximal end and a distal end, and that is adjustable from a first configuration having a first shape such that the elongate body is adapted to be delivered at least in part into the vessel to a second configuration having a second shape such that the elongate body is adapted to exert a force from within the vessel onto the extravascular tissue structure in order to remodel the extravascular tissue structure, and

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wherein the elongate body is adapted to be positioned in the first configuration at least in part within a coronary sinus and is adapted to remodel a mitral valve annulus adjacent to the coronary sinus when the elongate body is located at least in part within the coronary sinus and is adjusted to the second configuration;

wherein the elongate body comprises a memory material.

77. (New) An apparatus comprising:

an elongate body of dimensions suitable for insertion into a coronary sinus, the elongate body having at least two first segments fixed to an interior wall of the coronary sinus, and at least one second segment disposed between the first segments, wherein said at least one second segment is capable of decreasing its axial length to draw one of the first segments towards the other first segment, wherein the elongate body is capable of reducing a longitudinal length of a portion of the coronary sinus by drawing one of the first segments attached to a first portion of the coronary sinus towards the other first segment attached to a second portion of the coronary sinus.

78. (New) The apparatus of claim 77, wherein the elongate body serves to inhibit a portion of the coronary sinus from lengthening.

79. (New) The apparatus of claim 77, wherein the second segment decreases its axial length as the second segment is expanded in a radial direction.

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80. (New) The apparatus of claim 77, wherein each of the first segments is configured to expand in a radial direction without substantial length reduction.

81. (New) The apparatus of claim 77, wherein the first segments comprise a plurality of radially expandable cells, each of said radially expandable cells configured such that the respective cell is expanded in a radial direction without substantial length reduction.

82. (New) The apparatus of claim 77, wherein each segment of the elongate body is expandable independent of other segments.

83. (New) The apparatus of claim 77, wherein the elongate body is coated to avoid thrombosis in the coronary sinus.

84. (New) The apparatus of claim 77, wherein the elongate body is a stent.

85. (New) The apparatus of claim 77, wherein the elongate body is made of memory material.